SPITSYN, Vik[illegible].I., akademik; KOLLI, I.D.; RODIONOV, R.A.; SEVAST'YANOVA, T.G.

Conductance of aqueous and nonaqueous solutions of trifluoroborazane. Dokl. AN SSSR 165 no.2:341-343 N '65. (MIRA 18:11)

1. Moskovskiy gosudarstvennyy universitet i Institut fizicheskoy khimii AN SSSR.

A) L 13075-66 EWT(m)/EWP(v)/EWT(j)/T/EWP(t)/EWP(b)/EWA(h) IJP(c) JD/
WW/RM

ACC NR: AP5028915 SOURCE CODE: UR/0020/65/165/003/0626/0628 64B

AUTHOR: Kabanov, V. Ya.; Grozinskaya, Z. P.; Zubov, P. I.; Spitsyn, Vikt. I. (Academician)

ORG: Institute of Physical Chemistry, Academy of Sciences SSSR (Institut fizicheskoy khimii Akademii nauk SSSR)

TITLE: The study of adhesion of polyethylene coatings on aluminum bases during irradiation

SOURCE: AN SSSR. Doklady, v. 165, no. 3, 1965, 626-628

TOPIC TAGS: adhesive bonding, polyethylene plastic, protective coating, irradiation effect, ADHESION, ELECTRON BEAM

ABSTRACT: It was found earlier by the authors (Vysokomolek. soyed., in print) that prolonged low intensity irradiation of polyethylene coatings results in a considerable increase in adhesion. The present paper describes the direct investigation of such adhesion on samples subjected to a beam of accelerated electrons. Samples were prepared from nonstabilized low-pressure polyethylene deposited by melting on 50μ-thick aluminum foil supports. The heating lasted 10 min. at 230C with a subsequent application of 6 kg/cm^2 of pressure. Results are summarized on Table 1.

Card 1/3 UDC: 541.6

L 13075-66

ACC NR: AP5028915

TABLE 1. Adhesion of polyethylene coatings to aluminum supports subjected to irradiation (samples were prepared three days prior to the tests).

NO. OF TEST	DOSE INTENSITY, X 10^{-4} RAD/SEC	IRRADIATION TIME PRIOR TO THE ADHESION DETERMINATION, MIN	ADHESION, KG/CM: UNDER BEAM, WITHOUT CHARGE REMOVAL	ADHESION, KG/CM: UNDER BEAM, WITH CHARGE REMOVAL	ADHESION CURRENT, μA	BEAM TURNED OFF: WITHOUT CHARGE REMOVAL IMMEDIATELY AFTER TURNING OFF THE BEAM	BEAM TURNED OFF: WITH CHARGE REMOVAL IMMEDIATELY AFTER TURNING OFF THE BEAM
1	2,7	1	1	1	0,7	—	—
2	4,5	1	1	1	1,45	—	1
3	6,2	1	1	—	—	1	1
4	8,9	1	1	1	2,65	1	—
5	4,5	0,5	1	—	—	—	—
		2	1			1	
		5	1				

Card 2/3

L 13075-66

ACC NR: AP5028915

The independence of adhesion of dose intensity indicates that the Al-O-R and Al-R chemical bonds play no significant role. The analysis of the data indicate that the basic assumptions of the electrical theory of adhesion cannot be used for the explanation of the influence of irradiation on adhesion between polyethylene and aluminum foils. Orig. art. has: 2 figures and 1 table.

SUB CODE: 07,20,11/ SUBM DATE: 15May65 / ORIG REF: 002 / OTH REF: 002

Card 3/3

BAZANOV, A.A.; SPITSYN, Vik.I.; DOBROSEL'SKAYA, N.P.

Cracking of cumene over a tricalcium phosphate catalyst.
Izv.AN SSSR.Ser.khim. no.12:2095-2100 '65.
(MIRA 18:12)

1. Institut fizicheskoy khimii AN SSSR i Moskovskiy gosudarstvennyy universitet im Lomonosova.

KUDRYAVTSEV, A.S.; SAVICH, I.A., BYLINA, S.I.; SPITSYN, V.I., akademik

Magnetic susceptibility of inner-complex compounds of nickel and copper with Schiff bases. Dokl. AN SSSR 165 no.4:864-867 D '65. (MIRA 18:12)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova.

SPITSYN, V.I.; ROZENFEL'D, I.L.

Nikon Danilovich Tomashov, 1905-. Zashch. met. 2 no.1:3-4 Ja-F '66. (MIRA 19:1)

SPITSYN, Vikt.I., akademik; MIKHEYEV, N.B.; KHERMANN, A.

Thermodynamic study of the distribution of microgram quantities of strontium between barium hydrophosphate and solution. Dokl. AN SSSR 166 no.3:658-659 Ja '66. (MIRA 19:1)

1. Moskovskiy gosudarstvennyy universitet.

YERSHOV, B.G.; PIKAYEV, A.K.; GLAZUNOV, P.Ya.; SPITSYN, Vikt.I.

Electron paramagnetic resonance spectra of irradiated Fricken aqueous solutions. Report No.3: Aqueous solutions of sodium nitrate. Izv. AN SSSR. Ser. khim. no.11:1919-1927 '65. (MIRA 18:11)

1. Institut fizicheskoy khimii AN SSSR.

CHUVAYEV, V.F.; BAKHCHISARAYTSEVA, S.A.; SPITSYN, Vikt.I., akademik

Position of hydrogen ions in some heteropoly compounds studied by means of nuclear magnetic resonance. Dokl. AN SSSR 165 no.5:1126-1129 D '65. (MIRA 19:1)

1. Institut fizicheskoy khimii AN SSSR. Submitted May 25, 1965.

[redacted], Viktorova

Nuclear magnetic resonance (N.M.R.) spectra of certain [illegible] acids. Dokl. AN SSSR 166 no.1:160-163 Ja '66. (MIRA 19:1)

1. [illegible] Chichibabin Chair. I.P.S.U.E.

BALANDIN, A.A.; SPITSYN, Vikt.I.; DOBROSEL'SKAYA, N.P.; MIKHAYLENKO, I. Ye.

Effect of the radiation of radioactive S^{35} on the catalytic dehydration of cyclohexanol. Zhur. fiz. khim. 39 no. 1: 258-261 Ja '65 (MIRA 19:1)

1. Institut fizicheskoy khimii AN SSSR i Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova. Submitted April 11, 1964.

SPITSYN, Vikt.I.; MIKHEYEV, I.B.; KHERMANN, A.

New method of accelerating the establishment of equilibrium between the crystalline phase and solution. Zhur.neorg.khim. 11 no.1:195-197 Ja '66. (MIRA 19:1)

1. Kafedra neorganicheskoy khimii Moskovskogo gosudarstvennogo universiteta imeni M.V.Lomonosova. Submitted May 5, 1964.

SPITSYN, Vikt. I.; PATSUKOVA, N.N. [deceased]

Heat of formation of H_2WO_4. Zhur.neorg.khim. 10 no.11:2396-2399 N '65. (MIRA 18:12)

1. Kafedra neorganicheskoy khimii Moskovskogo gosudarstvennogo universiteta imeni M.V.Lomonosova. Submitted May 9, 1964.

SPITSYN, Viktor I.

Inorganic chemistry at the 20th International Congress on Theoretical and Applied Chemistry. Zhur.neorg.khim. 10 no.12:2842-2845 D '65. (MIRA 19:1)

L 42939-66 EWT(m)/EWF(j)/T WW/JWD/RM

ACC NR: AP6013283 (A) SOURCE CODE: UR/0413/66/000/008/0079/0079

INVENTOR: Spitsyn, V. I.; Kolli, I. D.; Rodionov, R. A.

ORG: none

TITLE: Preparation of organoelemental polymers. Class 39, No. 180799

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 8, 1966, 79

TOPIC TAGS: polymer, organoelemental polymer

ABSTRACT: This Author Certificate introduces a method of preparing an organoelemental polymer of the general formula

$$\left(\begin{array}{c} -B-N- \\ | \quad | \\ F \quad R \end{array}\right)_n,$$

where R—hydrogen, alkyl C_1—C_{10}, aryl, cycloalkyl or heterocyclic radical, and n is the degree of polymerization. By this method, BF_2NR_2 or $(BFNR)_3$ monomers are heated under vacuum at 150--290 C in the presence of polymerization initiators, such as

Card 1/2 UDC: 678.86.16.27

L 26745-66 EWT(m) DIAAP JD/JG

ACC NR: AP6011474 SOURCE CODE: UR/0070/66/011/002/0316/0320

30
B

AUTHOR: Spitsyn, V. I.; Zimakov, I. Ye.; Zemlyanova, L. I.

ORG: Institute of Physical Chemistry, Academy of Sciences, SSSR (Institut fizicheskoy khimii Akademii nauk SSSR)

TITLE: Investigation of the influence of radioactive emission from Mo^{99} on the surface structure of molybdenum anhydride

19

SOURCE: Kristallografiya, v. 11, no. 2, 1966, 316-320

TOPIC TAGS: molybdenum compound, radioactivity effect, surface property, crystallization

ABSTRACT: The authors investigated under an electron microscope the surface structure of samples of molybdenum trioxide containing different amounts of radioactive Mo^{99}, which emits high-energy β particles (1.23 Mev) of relatively short half life (67 hours). The electron microscope pictures were taken by the replica method. The compounds were in the form of powder placed on a collodion film. The measurement procedure is briefly described. The results showed that in the case of nonradioactive compounds the surface remained relatively even and smooth. The radioactive surface remain even and smooth at specific activity from 1 to 3 mCi/g. Starting with 4 mCi/g, the surface became very rough. The main cause of the roughness is assumed to be the emission of electrons from the radioactive nuclei and the formation of new active centers during the course of crystallization. The radioactivity also in-

Card 1/2 UDC: 548.4: 539.16

L 26745-66

ACC NR: AP6011474

creased appreciably the effective external surface of the crystal. Other changes induced by the radioactivity are the decomposition of the crystal into smaller blocks and a certain degree of asterism. Orig. art. has: 5 figures.

SUB CODE: 20/ SUBM DATE: 30Apr65/ ORIG REF: 014/ OTH REF: 001

Card 2/2

L 16944-66 EWT(m)/EWP(t) IJP(c) JD/JW

ACC NR: AP6004392 (A) SOURCE CODE: UR/0020/66/166/003/0658/0659

AUTHOR: Spitsyn, V.I. (Academician); Mikheyev, N.B.; Khermann, A.

ORG: Moscow State University im. M.V. Lomonosov (Moskovskiy gosudarstvennyy universitet)

TITLE: Thermodynamic study of the distribution of microquantities of strontium between barium hydrophosphate and the solution

SOURCE: AN SSSR. Doklady, v. 166, no. 3, 1966, 658-659

TOPIC TAGS: strontium compound, barium compound, phosphate, thermodynamic calculation

ABSTRACT: A thermodynamic study of the cocrystallization of strontium with barium hydrophosphate was carried out. An electrolytic method was employed to establish equilibrium in the $BaHPO_4$-$SrHPO_4$-H_2O system: under the influence of electrolysis, multiple recrystallization of the deposit is achieved which promotes the equilibrium. The cocrystallization factor D was determined by using radioactive strontium, and found to be constant (0.31) at low ionic strengths of the solution. The activity products of $BaHPO_4$ and $SrHPO_4$ were determined by use of P^{32}, and found to be 3.96×10^{-8} and

Card 1/2 UDC: 541.123.4

L 16944-66
ACC NR: AP6004392

and 1.12×10^{-7}, respectively. From these values, the energy of formation of a solid solution of $SrHPO_4$ in $BaHPO_4$ was calculated to be +31.6 cal/mole. Orig. art. has: 1 figure, 1 table, and 1 formula.

SUB CODE: 07 / SUBM DATE: 16Jun65 / ORIG REF: 006 / OTH REF: 004

20/

Card 2/2 vmb

ACC NR. AP7010694

SOURCE CODE: UR/0089/66/021/004/0277/0281

AUTHOR: Spitsyn, V. I.; Mikhaylenko, I. Ye.

ORG: none

TITLE: Application of radioactive catalysts to dehydration of spirits

SOURCE: Atomnaya energiya, v. 21, no. 4, 1966, 277-281

TOPIC TAGS: radiation effect, catalysis, heterogeneous catalysis, catalyst, dehydration

SUB CODE: 07

ABSTRACT: Radiation effects on catalytic processes were analyzed. It is shown that radioactive admixtures to the catalyst considerably altered the rate and energy of the apparent alcohol dehydration and in some cases the direction of the heterogenous-catalytic reactions. Radiation changed the quality of the catalyst and strongly influenced the adsorbed layer of molecules on the catalyst surface by inducing their polarization. The polarization magnitude depended on the structure of reacting molecules. Orig. art. has: 7 figures and 1 formula. [NA]

Card 1/1

UDC: 541.128.3:553.76

0930 0890

ACC NR: AP7010712

culated by any accepted method. The problem thus reduces for all practical purposes to determining the concentration of carriers produced in the semiconductor by diffusion of a given element. The proposed method is verified on the basis of antimony diffusion in low-resistance *n*-germanium. The results show satisfactory agreement between the given method and the radioactive method with a coefficient of diffusion which agrees with the data in the literature. The method may be used for determining the concentration of any electrically active impurity element in a semiconductor as long as the carrier mobility is constant. In cases where the concentration of impurity atoms is considerable and the effect of concentration on mobility must be determined, it is advisable to use the electrical resistance method in combination with some other method for direct determination of impurity concentration (radioactive, spectral, chemical, etc.). This gives a quantitative estimation of the degree of ionization of the impurity atoms as a function of their concentration. Orig. art. has: 2 figures and 8 formulas.
[JPRS: 40,351]

Card 2/2

ACC NR: AP7010710 SOURCE CODE: UR/0020/66/171/004/0907/0910

AUTHOR: Spitsyn, Vikt. I. (Academician); Shuykin, N. I. (Corresponding Member AN SSSR); Mikhaylenko, I. Ye.; Petrova, O. M.

ORG: Institute of Physical Chemistry, AN SSSR (Institut fizicheskoy khimii AN SSSR)

TITLE: Conversion of n-hexane over alumina-chromia-potassia catalyst in a nuclear reactor

SOURCE: AN SSSR. Doklady, v. 171, no. 4, 1966, 907-910

TOPIC TAGS: gamma irradiation, neutron irradiation, catalyst, dehydrogenation, chemical energy conversion, hexane

SUB CODE: 07

ABSTRACT: A study was made of the behavior of alumina-chromia-potassia catalyst under the action of ionizing radiation. It was previously reported that in the dehydrogenation of methylcyclohexane to telvene in the presence of alumina-chromia catalyst promoted with potassia and cerium oxide, preliminary irradiation of the catalyst increases its catalytic activity. In the present work, a catalyst was chosen having a composition of 90.7 mole percent alumina, 5.6 mole percent chromia, and 3.7 percent potassia. It was used in the conversion of N-Hexane. The catalyst samples were irradiated

UDC: 542.97

Card 1/2

0930 2916

ACC NR: AP7010710

in a nuclear reactor with slow neutrons and gamma rays. The experimental data show that irradiation of the catalyst results in significant increases in the yield of benzene. With repeated use of the catalyst, the benzene yield remained at a level corresponding to that of the unirradiated catalyst. Irradiation also appeared to affect the selectivity of the catalyst. The authors thank Ye. A. Timofeyev for providing the catalyst. Orig. art. has: 3 tables. /JPRS: 40,351/

Card 2/2

ACC NR: AT6[illegible] SOURCE CODE: UR/3119/66/000/004/0005/0011

AUTHOR: Spitsyn, V. I.

ORG: Institute of Physical Chemistry, AN SSSR (Institut fizicheskoy khimii AN SSSR)

TITLE: Concerning radiation-chemical activation of the surface of solids

SOURCE: AN LatSSR. Institut fiziki. Radiatsionnaya fizika, no. 4, 1966. Ionnyye kristally (Ionic crystals), 5-11

TOPIC TAGS: radiation chemistry, surface active agent, crystal surface, activated crystal, sulfur compound, electron irradiation, beta radiation, radioactive decay

ABSTRACT: This is a continuation of earlier work (Radiokhimiya v. 6, 130, 1964 and preceding papers) dealing with the effect of radioactive irradiation of solids on numerous processes occurring on their surfaces. The present communication deals with isotopic exchange of sulfur in the system K_2SO_4 - SO_3 in which the sulfur of the K_2SO_4 is radioactive, as a function of the intrinsic activity of the compound, of the β particles emitted by the radioactive sulfur, and external irradiation of the K_2SO_4 and the SO_3 surface with high-energy electrons. Analogous results are presented for the rate of evaporation of MoO_3 (radioactive Mo) as a function of the specific radioactivity of the compound, and for the effect of $MgSO_4$ (radioactive S) as a catalyst as a function of the catalyst radioactivity. The general conclusion of all the results is that the physico-chemical features of radioactive compounds depend on two main factors - the accumulation of electric charges on the surface of the solid phase

Card 1/2

ACC NR: AT7001778

and the radiation phenomena which occur on the boundary with the gas or liquid phase. Certain effects, so far unclear, can be produced by active atoms and structure defects, produced in the volume of the solid under the influence of internal radiation. Orig art. has: 4 figures.

SUB CODE: 20/ SUBM DATE: 00/ ORIG REF: 020/ OTH REF: 001

Card 2/2

Card 1/2

ACC NR: AT7001780

Orig. art. has: 4 figures.

SUB CODE: 20/ SUBM DATE: 00/ ORIG REF: 002/ OTH REF: 006

Card 2/2

AKBAROV, Kh.A.; ZEMAN, Ya.N.; SPITSYN, V.L.

Methodology of rapid gamma-gamma determinations of the metal content of mud from percussive boreholes in a complex ore mine. Uch. zap. SAIGIMSa no.8:101-106 '62. (MIRA 17:1)

1. Sredneaziatskiy nauchno-issledovatel'skiy institut geologii i mineral'nogo syr'ya, Tashkent.

BALASHEV, V.N.; NOZHENKIN, Yu.V.; SPITSYN, V.L.

Spectral distribution of scattered gamma-radiation in crushed ore. Biul. nauch.-tekh. inform. VIMS no.2:33-36 '63.
(MIRA 18:2)

1. Gosudarstvennyy geologicheskiy komitet SSSR.

L 47185-66 EWT(m)/EWP(t)/ETI IJP(c) JD/JG

ACC NR: AP6027193 (A) SOURCE CODE: UR/0078/66/011/008/1965/1966

AUTHOR: Ekhargava, Kh. D.; Kovba, L. M.; Martynenko, L. I.; Spitsyn, V. I.

ORG: Inorganic Chemistry Department, Moscow State University im. M. V. Lomonosov (Kafedra neorganicheskoy khimii, Moskovskiy gosudarstvennyy universitet)

28
B

TITLE: Reactions of barium oxide with rare earth oxides

SOURCE: Zhurnal neorganicheskoy khimii, v. 11, no. 8, 1966, 1965-1966

TOPIC TAGS: barium oxide, barium compound, rare earth compound

ABSTRACT: In a study of the solid-phase reactions of BaO with rare earth oxides, pressed pellets of stoichiometric mixtures were fired at 1000-1300°C, and the products were subjected to X-ray phase analysis with RKD-57 cameras. The reactions of BaO with Nd_2O_3, Sm_2O_3, Gd_2O_3 and Ho_2O_3 proceed at a rapid rate even at 850°C, whereas the reaction with Lu_2O_3 and especially Yb_2O_3 takes place above 1000°C. Tm_2O_3 and Er_2O_3 do not react with BaO up to 1200°C; this is probably due to the fact that at this temperature the products $BaTm_2O_4$ and $BaEr_2O_4$ are at the verge of transition from a $CaFe_2O_4$-type structure to a $BaYb_2O_4$-type structure. $BaYb_2O_4$ and $BaLu_2O_4$ crystallize in the hexagonal system, and their sublattice parameters are given. The type of their superstructure could not be determined. Orig. art. has: 2 tables.

SUB CODE: 07/ SUBM DATE: 15Apr65/ ORIG REF: 001/ OTH REF: 001

Card 1/1 egb UDC: 546.65'431'21

SPITSYN, V.I.; [illegible], V.A.; MAKAROV, N.K.

Effectiveness of fertilizers in green fallows. Zemledelie 27 no.6:64-66 Je '65. (MIRA 18:9)

1. Tambovskaya sel'skokhozyaystvennaya opytnaya stantsiya.

KUDRYAVTSEVA, K.P.; ZHUKOVETS, M.S.; ARUTYUNOV, I.S.; NOGAYEV, B.N.; SPITSYN, V.V.; RYAKINA, M.A.; NEKHAYEVA, G.G.; IKAYEV, N.V.; AVRAMENKO, L.M.; TSOGOYEV, T.Kh., otv.red.; BAYMATOV, P.S., tekhn.red.

[Economy of the North Ossetian A.S.S.R.; statistics] Narodnoe khoziaistvo Severo-Osetinskoi ASSR; statisticheskii sbornik. Ordzhonikidze, 1958. 130 p. (MIRA 12:10)

1. North Ossetian A.S.S.R. Statisticheskoye upravleniye.
2. Nachal'nik Statisticheskogo upravleniya Severo-Osetinskoy ASSR (for TSogoyev).
(Ossetia--Statistics)

25(1) SOV/135-59-3-3/24

AUTHORS: Akulov, A.I., Candidate of Technical Sciences, Spitsyn, V.V., Engineer, MVTU, and Krzhechkovskiy, A.K., Engineer, Trest Nr 7

TITLE: The Welding in Carbon Dioxide of the Rotatable Butt Joints of Low-Carbon Steel Pipes (Svarka v uglekislom gaze povorotnykh stykov trub iz malouglerodistoy stali)

PERIODICAL: Svarochnoye proizvodstvo, 1959, Nr 3, pp 6-7 (USSR)

ABSTRACT: The MVTU imeni Bauman developed in 1956 in its welding laboratory a method of automatic arc welding for joining the butt ends of pipes, eliminating the use of flux and hence the necessity to use backing rings, and all the difficulties caused by the flux. The new method consists in using two electrode wires at one time ("split electrode"), held either across the seam to obtain a wide and shallow bead, or in line lengthwise to obtain a narrow but deep bead; permitting welding 6 mm thick wall pipes in one pass. CO_2 is used for shielding gas. The welding head, "TSG-4", developed for the purpose is described in detail and illustrated (Fig. 1), as well as its variation for field conditions (Fig. 2). The method is in use in Bugul'ma, Omsk and Ufa. The SMU-70,

Card 1/2

SOV/135-59-3-3/24

The Welding in Carbon Dioxide of the Rotatable Butt Joints of Low-Carbon Steel Pipes

(Stroitel'no-montazhnoye upravleniye - Building and Assembly Administration) in the city of Bugul'ma used the method of constructing more than 10 km of pipeline under field conditions; the SMU-71, Omsk, and the SMU-9, Ufa, are using it with good results. There are 3 photographs.

ASSOCIATIONS: MVTU imeni Bauman and Trust Nr 7 of Glavneftemontazh

Card 2/2

AKULOV, A.I., kand.tekhn.nauk, SPITSYN, V.V., inzh.

Submerged arc welding of flanges in an atomosphere of carbon dioxide. Svar. proizv. no.2:31-32 F '60. (MIRA 13:6)

1. Moskovskoye vysshoye tekhnicheskoye uchilishche im. Baumana.
(Electric welding) (Protective atmospheres)

S/125/60/000/06/01/007

AUTHORS: Akulov, A.I., and Spitsyn, V.V.

TITLE: Increasing the Resistance of Stainless Welds Against Intercrystalline Corrosion by Faster Cooling

PERIODICAL: Avtomaticheskaya svarka, 1960, No. 6, pp 12 - 18

TEXT: The tendency for intercrystalline corrosion in 18-8 type steel depends on the temperature at which chromium carbides are forming and chromium is diffusing, and on the duration of such temperature. The critical interval is 450-850°C. The use of copper lining to speed the cooling is not always effective and not always possible. The use of water for this purpose was previously described in a Polish [Ref. 3] and an English source [Ref. 4] . The article gives detailed information on experiments at MVTU im.Baumana (MVTU imeni Bauman), in which it was found that water fed onto hot or molten metal in the argon arc welding process did not affect the mechanical properties of welds, but raised the resistance of multilayer welds (insufficiently stabilized by titanium) against intercrystalline corrosion. The materials used in the experiments were: X18H12M2T (Kh18N12M2T) steel for parent metal with "Cb-X18H11M (Sv-Kh18N11M) steel for welding rods, and 1X18H9T (1Kh18N9T) with welding rods of same steel type with T and without. The

Card 1/2

S/125/60/000/06/01/007

Increasing the Resistance of Stainless Welds Against Intercrystalline Corrosion by Faster Cooling

chemical composition is given in Tables 1 and 3. It is mentioned that quicker cooling of the weld had no positive effect when "provocative" annealing after welding was used. There are 5 diagrams, 5 tables and 4 references, 2 of which are Soviet, 1 Polish and 1 English.

ASSOCIATION: MVTU im. Baumana (MVTU imeni BAUMAN)

SUBMITTED: December 25, 1959

Card 2/2

✓C

82807
S/125/60/000/007/004/010
A161/A029

18.7200

AUTHORS: Akulov, A.I.; Spitsyn, V.V.

TITLE: The Effect of Cooling Rate on the Resistance of Stainless Welds to Knife-Line and General Corrosion

PERIODICAL: Avtomaticheskaya svarka, 1960, No. 7, pp. 43 - 48

TEXT: The effect of forced cooling by water described previously by the authors (Ref. 5) was studied at the welding laboratory of the MVTU im Baumana (MVTU imeni Bauman) in automatic arc welding in argon with fusing electrode. The article contains details of experiments. The parent metal experimented with was stainless Kh18N12M2T (Kh18N12M2T) steel containing (%): 0.10 C, 0.57 Si, 0.89 Mn, 17.36 Cr, 12.96 Ni, 0.50 Cu, 0.43 Ti, 2.88 Mo, 0.037 P and 0.022 S. It was found that in welding without forced cooling the spot 1.0 - 1.5 mm from the boundary between the parent and the weld metal remains longest in the critical temperature interval, and knife-line corrosion is to be expected in this spot. The conclusion was drawn that speeded-up cooling by water jet reduced the development of knife-line corrosion in "Kh18N12M2T" steel, but had practically no effect on the general corrosion of welded joints of 1Kh18N9T (1Kh18N9T) steel. An edito-

Card 1/2

82807

S/125/60/000/007/004/010
A161/A029

The Effect of Cooling Rate on the Resistance of Stainless Welds to Knife-Line and General Corrosion

rial note (p. 44) concerning the spot of the longest effect of critical temperature points out that the spot of knife-line corrosion is determined not by the duration of the critical 450 - 850°C temperature effect in the spot only, but also by the duration of preceding heating at a temperature causing dissolution of titanium or niobium carbides. There are 8 figures and 6 references: 4 Soviet and 2 English.

ASSOCIATION: MVTU im. Baumana (MVTU imeni Bauman)

SUBMITTED: December 25, 1959

Card 2/2

AKULOV, A.I., kand.tekhn.nauk; SPITSYN, V.V., inzh.

Pipe welding in carbon dioxide with transverse weaving of the electrode. Svar.proizv. no.9:35-37 S '60. (MIRA 13:8)

1. Moskovskoye vysshoye tekhnicheskoye uchilishche im.Baumana.
(Electric welding)
(Protective atmospheres)

84636

18.7200 1506, 2308 only

S/135/60/000/011/013/016
A006/A001

AUTHORS: Akulov, A.I., Candidate of Technical Sciences, Spitsyn, V.V., Sokol, I.A., Engineers

TITLE: The Use of Nitrogen-Hydrogen Mixture for Backing the Reverse Side of Welds

PERIODICAL: Svarochnoye proizvodstvo, 1960, No. 11, pp. 38-39

TEXT: When welding important stainless steel pipelines the internal space of the pipes is filled with argon to back and improve the formation of the reverse side of welds. The "Soyuzprommontazh" Trust at the Stalinogorsk Chemical Combine replaced the expensive argon by a cheaper nitrogen-hydrogen mixture. To select an optimum backing gas medium, the MVTU imeni Bauman welding laboratory together with "Soyuzprommontazh" investigated the effect of various gases and mixtures on mechanical and corrosion properties of weld joints. Welding tests were made with 200 x 4 and 89 x 3 mm diameter V4A steel pipes and with 76 x 5 mm diameter 1Kh18N9T (1Kh18N9T) steel pipes using the following backing gases: argon of first composition; nitrogen with 2% oxygen; a mixture of 86% nitrogen and 14% hydrogen; a mixture of 93% nitrogen and 7% hydrogen. In the two latter

Card 1/2

84636
S/135/60/000/011/013/016
A006/A001

The Use of Nitrogen-Hydrogen Mixture for Backing the Reverse Side of Welds

mixtures the oxygen content was 1.8%. The pipes were also welded without a backing gas medium. Welding was performed manually in two layers with unconsumable tungsten electrodes and V-shaped beveling of edges. The welding conditions were: 110 - 120 amps d-c of direct polarity; 12-13 v arc voltage; 15 l/min argon consumption. For V4A steel a welding wire of the same composition and 2 mm diameter was used, and for 1Kh18N9T steel a Sv-1Kh18N9T welding wire of 3 mm in diameter. Best results were obtained with a 93% nitrogen - 7% hydrogen mixture ensuring a sufficient reduction of oxides and a satisfactory shape of the reverse weld. Moreover this mixture is explosion-safe. Mechanical and corrosion properties of the welds were not affected and remained practically constant. About 100,000 rubles were saved during assembling technological pipelines of the Stalinogorsk chemical combine alone. There are 1 table and 2 figures.

ASSOCIATION: MVTU imeni Bauman (Spitsyn and Akulov) "Soyuzprommontazh" Trust (Sokol)

Card 2/2

AKULOV, A.I., kand.tekhn.nauk; SPITSYN, V.V., inzh.; SOKOL, I.A., inzh.

Argon-arch welding of alloy steel pipes using hydrogen nitrate protecting and molding mixes. Mont.i spets.rab.v stroi. 22 no.9:8-12 S '60. (MIRA 13:8)

1. Moskovskoye vysshaye tekhnicheskoye uchilishche imeni Baumana i trest Soyuzprommontazh.
(Pipe, Steel--Welding)

AKULOV, A.I., kand.tekhn.nauk; SPITSYN, V.V., inzh.

Automatic pipe welding in a carbon dioxide medium at a pipe plant. Mont. i spets. rab. v stroi. 23 no.4:14-17 Ap '61. (MIRA 14:5)

1. Moskovskoye vyssheye tekhnicheskoye uchilishche imeni Baumana.
(Pipe--Welding)

A process of reducing welding ...

was carried out at 10-15° uphill so that the water ran off. Heat resisting steel 1X18H9T (1Kh18N9T) is then examined. A bead was deposited on 5 mm thick plates. Welding conditions 240-250 A (reverse polarity d.c.), 28 arc volts, speed 18.8 m/hr., 1.0 mm Sv-0Kh18N9 wire, argon shielding. The plates were not pre-bent, and were unrestrained during bead deposition, and the results are shown in Fig. 3. The deformation was reduced by 57 %, and the residual st[illegible]s by 37 %. Bending distortion along and transverse to the weld was also considered, the former being assessed on a 160 mm base, and the latter across the plate at three sections. Water cooling apparently reversed the direction of longitudinal bending (Fig. 4a) suggesting that at the right cooling rate no distortion will occur. Mechanical and corrosion-resistance properties of welded joints and weld metal were found to be unaffected by water cooling, except that in multi-layer welds corrosion res[illegible]stance (intercrystalline[illegible]) was improved. Gas content was also unaffected. As regards mil[illegible] steel a similar procedure was followed, 2.5 mm thick, 150 x 300 mm, steel 3 plates being used. A longitudinal bead was deposited using the CO_2-shielded process, with 1 mm diameter Sv-10GS wire, 160 A,

Card 2/[illegible]

27810
S/549/61/000/101/008/015
D256/D304

A process of reducing welding ...

28 arc volts, and 36 m/hr. welding speed. In this case the welding strains were reduced by 70 % and the residual longitudinal stresses by 18 %. Hardness testing shows a slightly higher general hardness level in the water-cooled specimens and elimination of the recrystallized zone in the parent metal. Properties of welded joints and weld metal made with water cooling onto the pool are satisfactory, but no comparative data are given. It was concluded generally that this method of reducing welding stresses and strains is effective and unaccompanied by any sacrifice in weld or joint properties. There are 8 figures and 6 tables.

Card 3/4

1.2300

27816
S/549/61/000/101/014/015
D256/D304

AUTHORS: Akulov, A.I., Candidate of Technical Sciences, Docent, and Spitsyn, V.V., Engineer

TITLE: The influence of argon and 18/8-type wire composition on weld metal properties

PERIODICAL: Vyssheye tekhnicheskoye uchilishche. Trudy. Svarka tsvetnykh splavov, redkikh metallov i plastmass, no. 101, 1961, 236 - 240

TEXT: Two grades of argon and two wire compositions were used to make welds by the sigma process. The pure, grade 2 argon contained 0.3 % N_2 and 0.05 % O_2, and technical argon (widely used because of its cheapness) 10 % N_2, 0.5 % O_2 and 0.4 % CO_2. 1 mm diameter wires of the following compositions were used. (Table 1). Except for the nitrogen content, the composition of the deposited metal shows little dependence on argon purity. Technical argon gave 0.26% nitrogen and pure argon, 0.16 - 0.18 % with SV-1Kh18N9T. In either gas SV-0kh18N9 and SV1Kh18N9T wires gave 0.17 and 0.44 % titanium,

Card 1/4

The influence of argon and ...

and 1.15 and 0.7 % manganese, respectively. Gagarin specimens prepared to GOST 1497-42 were used to determine weld metal mechanical properties. These were taken from a 12-layer weld deposited between two 1Kh18N9T plates using both gases and wires, with current 220 A, arc voltage 22 V, welding speed 35 m/hr., argon flow 15 l/min. The titanium-containing-wire gave dull clean fractures, while the unstabilized wire specimens showed some fibrosity and tearing. Impact test specimens were taken from welds between 12 mm 1Kh18N9T plates, made with an assymetric double-V preparation in three passes. Welding conditions: current 220 A, arc voltage 22 V, welding speed, 35 m/hr., argon flow 15 l/min., two upper and one sealing passes. Testing was carried out at room temperature. With the tensile specimens the argon quality has little influence on fracture appearance. The titanium-containing wire gives a more ductile fracture, with smaller "fish-eyes". Ground specimens in 5 mm thick 1Kh18N9T plate welds were used to determine corrosion resistance. Both grades of wire and gas were used. Welding was carried out in a single pass without backing bars with current 220 A, arc voltage 27 V, welding speed 38 m/hr., argon flow 15 l/min. To determine the effect of re-

Card 2/4

The influence of argon and ...

heating caused by multi-layer welding on corrosion resistance, welds were also made by a pass each side; welding conditions were the same as before except for increased speed. Both wires were used but only the pure argon. Specimens were boiled [Abstractor's note: In what not mentioned] and bent along the weld, two in each direction. Single-pass welds are not susceptible to intercrystalline corrosion, irrespective of gas or wire. Double-sided welds made with the titanium-containing wire are also insensitive. In some specimens from welds made with the titanium-free wire the first pass is susceptible to corrosion while the second remains satisfactory. The overall conclusions are that the argon purity has little effect on weld mechanical and chemical properties, and that titanium in the welding wire enchances mechanical properties and ensures corrosion resistance in multi-layer welds, but is not essential in single-layer welds. There are 3 tables.

Card 3/4

S/775/62/002/000/008/011

AUTHORS: Akulov, A.I., Spitsyn, V.V.

TITLE: Automation of the CO_2-shielded welding of tubes and flat-plate structures.

SOURCE: Avtomatizatsiya protsessov mashinostroyeniya. t. 2: Goryachaya obrabotka metallov. Moscow, Izd-vo AN SSSR, 1962, 222-226.

TEXT: Gas-shielded arc welding with a consumable electrode can be automated readily for any desired position in space and for welding of both rotating and nonrotating pipes. The 1956 method of automatic arc welding of rotational butt welding of pipes with back-up rings, developed by the welding lab of the MVTU (Moscow Higher Technical School) imeni Bauman, is described. Welding (WG) was done simultaneously with two electrode wires - a split electrode. A jet of CO_2 protected the WG zone. The WG arc was displaced from the zenith of the tubes being welded against their sense of rotation, so that the arc process would occur above a protective layer of molten metal. The two electrode branch wires could be placed across the WG gap in wide gaps and along it in narrow gaps. Pipes up to 6-mm thick were welded in a single pass (i.e., a single rotation of the pipes); thicker pipes required additional passes. The absence of flux facilitates observation of the weld and accelerates the crystallization of the metal in the WG bath; hence, WG of small-diam pipes becomes possible. Optimal electric parameters (generator characteristics) and the mechanical properties of the weld material obtained are summarized. X-ray photographs

SPITSYN, V.V., inzh.

Effect of technological parameters of welding conditions on the output of welding in carbon dioxide. Svar. proizv. no.9: 29-30 S '65. (MIRA 18:9)

1. Moskovskoye vysshoye tekhnicheskoye uchilishche im. Baumana.

L 29688-66 EWP(k)/EWT(m)/T/EWP(v)/EWP(t)/ETI JD/HM

ACC NR: AP6008817 SOURCE CODE: UR/0135/66/000/003/0032/0034

AUTHORS: Akulov, A. I. (Doctor of technical sciences); Chernyshev, G. G. (Engineer); Spitsyn, V. V. (Engineer)

36
B

ORG: MVTU im. N. E. Bauman (MVTU)

TITLE: Automatic butt welding of nonrotating low-carbon steel pipes in carbon dioxide

SOURCE: Svarochnoye proizvodstvo, no. 3, 1966, 32-34

TOPIC TAGS: butt welding, automatic welding, welding technology/ Sv-08G2S electrode wire, St3 steel

pipe, low carbon steel,

ABSTRACT: To improve the quality of butt welding of nonrotating low-carbon steel pipes, a method which uses lateral oscillations of the welding electrode was developed at MVTU (A. I. Akulov and V. V. Spitsyn. Svarka trub v uglerodistom gaze s poperechnymi kolebaniyami elektroda. Svarochnoye proizvodstvo, 1960, No. 9). Low-carbon steel pipes (195 x 6, 219 x 8, and 273 x 8 mm diameter) with V-shaped butts were welded with Sv-08G2S electrode wire. The root welds (with 2-mm clearance) were performed with a vibration amplitude of 6--8 mm and 40--90 cpm and the finishing welds with an amplitude of 12--14 mm (to cover the V-opening). Curves of welding current as a function of electrode speed (0--40 m/hr) are presented and sections at different positions in the butt weld are shown. To determine the strength of the

Card 1/2 UDC: 621.791.753.9:661.97:62-462

L 36813-66 SWP(j)/EWT(m)/T/EWP(v)/EWP(t)/ETI IJP(c) GS/EM/AWAC

ACC NR: AP6024415 SOURCE CODE: UR/0020/66/169/001/0146/0149

82
81
B

AUTHOR: Kabanov, V. Ya.; Grozinskaya, Z. P.; Zubov, P. I.; Spitsyn, V. I. (Academician)

ORG: Institute of Physical Chemistry, Academy of Sciences, SSSR (Institut fizicheskoy khimii Akademii nauk SSSR)

TITLE: The effect of radiation on adhesion of polymer coatings on aluminum

SOURCE: AN SSSR. Doklady, v. 169, no. 1, 1966, 146-149

TOPIC TAGS: protective coating, polymer coating, plastic coating, adhesion, radiation effect, ionizing radiation, electron radiation, aluminum

ABSTRACT: Previous studies by the authors of the effect of ionizing radiation on the adhesion of polyethylene coatings on aluminum foil [Vysokomolek. soyed., v. 8, no. 4, 1966 and DAN, v. 165, no. 3, 1965] were extended to other polymeric coatings of different chemical composition. A comparative study was made of adhesion of 500—600 μ thick epoxy, polyester, perchlorovinyl, and polyurethane coatings before and after irradiation at a low (from a Co^{60} source) or high ($\sim 10^4$ rad/sec from a linear accelerator) dose rate of ionizing radiation. A stripping method previously described was used to evaluate adhesion. Energy of adhesion was also determined during irradiation with a high-intensity electron beam (from the linear accelerator).

Card 1/2 UDC: 678.744

L 36313-66

ACC NR: AP6024415

An increase in adhesion of all coatings studied was noted after prolonged irradiation at a low dose rate (163 rad/sec), in air or vacuum, together with an increase in rigidity and brittleness of all but the polyurethane coatings. Epoxy coatings exhibited the most notable increase in adhesion. The initial increase in adhesion was explained as the result of radiation-induced formation of polar groups, e.g., OH, C=O, and after hardening of the coatings. In opposition to polyethylene, the energy of adhesion of other coatings was higher under the electron beam than before irradiation. The highest difference in adhesion was noted for epoxy coatings, the lowest for polyurethane coatings. This increase in adhesion was reversible in case of a short-time irradiation, irreversible in case of a longer exposure (higher radiation dose absorbed) to the electron beam. The role of chemical changes in polymers and relaxation processes was discussed to explain the increase in adhesion in polymers exposed to the electron beam. Duration of the exposure to radiation and the presence of oxygen in the coatings' composition were the most important factors contributing to increasing adhesion. Orig. art. has: 1 figure and 3 tables. [JK]

SUB CODE: 11/ SUBM DATE: 09Dec65/ ORIG REF: 004/ ATD PRESS: 5138

Card 2/2

L 33096-66 EWT(m)/EWP(t)/ETI IJP(c) JD/JG

ACC NR: AP6022871 SOURCE CODE: UR/0186/66/008/002/0125/0131

AUTHOR: Khlebnikov, V. P.; D'yachkova, R. A.; Spitsyn, V. I.

ORG: none

TITLE: Extraction of protactinium with tributyl phosphate. Part 3: Determination of the composition and stability constants of nitrate complexes of protactinium

SOURCE: Radiokhimiya, v. 8, no. 2, 1966, 125-131

TOPIC TAGS: protactinium, nitrate, ~~extraction~~, distribution coefficient, stability constant, solvent extraction

ABSTRACT: In order to determine the composition and stability constants of nitrate complexes of protactinium, the dependence of the distribution coefficient was studied as a function of hydrogen ion and nitrate ion concentration during extraction of protactinium with tributyl phosphate. At a constant ionic strength of the aqueous phase $\mu = 5$ and 6 in the range of high acid concentrations (3-6 M), the distribution coefficient was shown to be proportional to the square of the hydrogen ion concentration. At the constant value $\mu = 5$, the distribution coefficient increases with the NO_3^- concentration. A mechanism is proposed for the reaction of extraction of protactinium with tributyl phosphate. The stability constants of the nitrate complexes $Pa(OH)_2(NO_3)^{2+}$, $Pa(OH)_2(NO_3)_2^+$, $Pa(OH)_2(NO_3)_3^0$, and $Pa(OH)_2(NO_3)_4^-$ were calculated to

Card 1/2 UDC: 542.61:546.796:54-145.4

L 30036-66
ACC NR: AP6022871

be respectively $\beta_1 = 17$, $\beta_2 = 1.3 \times 10^2$, $\beta_3 = 5.4 \times 10^2$, and $\beta_4 = 1.4 \times 10^3$. The equilibrium constant for the reaction of extraction of protactinium with tributyl phosphate was found to be $K = 5.4 \times 10^3$. Orig. art. has: 4 figures, 3 tables, and 12 formulas.

SUB CODE: 07/ SUBM DATE: 05Nov65/ ORIG REF: 012/ OTH REF: 009

Card 2/2

L 32761-66 EWT(m)/EWP(v)/T/EWP(j) WW/GG/RM

ACC NR: AP6012707 (A) SOURCE CODE: UR/0190/66/008/004/0604/0612

AUTHOR: Spitsyn, V. I. ; Zubov, P. I.; Kabanov, V. Ya.; Grozinskaya, Z. P.

ORG: Institute of Physical Chemistry, AN SSSR (Institut fizicheskoy khimii AN SSSR)

TITLE: The effect of radiation on the adhesion of polyethylene to aluminum

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 8, no. 4, 1966, 604-612

TOPIC TAGS: aluminum, metal coating, radiation effect, adhesion, high temperature effect, polyethylene plastic

ABSTRACT: It was found that irradiation of a polyethylene coating on aluminum foil doubles its adhesion. If the coating is heated to the melting point after irradiation, adhesion triples. The nature of adhesion curves depends greatly on the type of polyethylene and the air medium. The irradiation of coatings and base layers is more effective than irradiation of the polyethylene powder alone. The increase in adhesion is explained by the radiation-induced oxidation of polyethylene in the contact area, which favors orientation of the carbonyl groups with respect to the aluminum oxide film. In addition, flexibility of the chains is increased in the radiation field, facilitating adhesive-substrate contacts. The decrease of adhesion with further irradiation is related to increased radiative crosslinking in polyethylene. The experimental results were confirmed by IR and NMP spectra, and by measuring the modulus of elasticity of irradiated polyethylene. The authors

Card 1/2 UDC: 678.01:53+678.782

L 32761-66

ACC NR: AP6012707

thank V. F. Chuvayev and S. A. Bakhchisaraytseva for photographing the IR and NMP spectra. Orig. art. has: 5 figures, 7 formulas, and 2 tables. [Based on authors' translation.] [NT]

SUB CODE: 11, 20/SUBM DATE: 18Mar65/ ORIG REF: 010/ OTH REF: 007/

Card 2/2 BLG

L 36792-66 EWP(k)/EWT(m)/T/EWP(v)/EWP(t)/ETI JD/HM

ACC NR: AP6019431 SOURCE CODE: UR/0135/66/000/006/0031/0033

AUTHOR: Akulov, A. I. (Doctor of Technical Sciences); Spitsyn, V. V. (Engineer); Chernyshov, G. G. (Engineer)

ORG: MVTU im. N. E. Bauman

TITLE: Special characteristics of automatic welding in carbon dioxide with a split electrode

SOURCE: Svarochnoye proizvodstvo, no. 6, 1966, 31-33

TOPIC TAGS: automatic welding, carbon dioxide, welding electrode

ABSTRACT: The article constitutes a review of the industrial possibilities of welding in carbon dioxide with a split electrode. In present day welding practice, it is common to use one-side welding for tube joints and sheet joints. In such cases, the quality of the welded joint is determined by the quality of the root of the seam. It has been found that welding with a split electrode guarantees the stability of the mechanical properties of the welded joint. This is illustrated by photographs in the article. In general, it is concluded that the formation of the welded seam, the regulation of the depth of fusion along the axis of the seam, and the burning stability of the arc, in

Card 1/2 UDC: 621.791.753.9.01:661.97:669.15-194

L 36792-66

ACC NR: AP6019431

welding in carbon dioxide with a split electrode, depend on the distance between the electrodes and the welding conditions. Orig. art. has: 6 figures.

SUB CODE: 13/ SUBM DATE: none/ ORIG REF: 004.

Card 2/2 af

L 50203-65 EWT(m)/EPF(c)/EPF(n)-2/EWG(m)/EPR Pr-4/Ps-4/Pu-4 WW
AM5014767 BOOK EXPLOITATION UR/621.039.7

27
B+1

Spitsyn, YEvgeniy YAkovlevich

Processing and disposal of radioactive laboratory wastes (Pererabotka i zakhoroneniye radioaktivnykh otkhodov laboratoriy). Moscow, Atomizdat, 1965. 131 p. illus., biblio. 2000 copies printed.

TOPIC TAGS: radioactive waste disposal, radioactive waste

19

PURPOSE AND COVERAGE: This book is intended for engineers and medical personnel concerned with the uses of atomic energy and for students of technical schools and schools of higher education. The book deals with problems of collecting, processing, transporting, and disposal of radioactive solid and liquid wastes from scientific-research laboratories, medical and educational institutions, and certain factories using radioactive substances. Both Soviet and foreign disposal methods are discussed. A. T. Avdonin is the author of subsections on coagulation, ionic exchange, biological purification, and electrodialysis (pages 30-44). There are 43 references: 40 Soviet and 3 in English.

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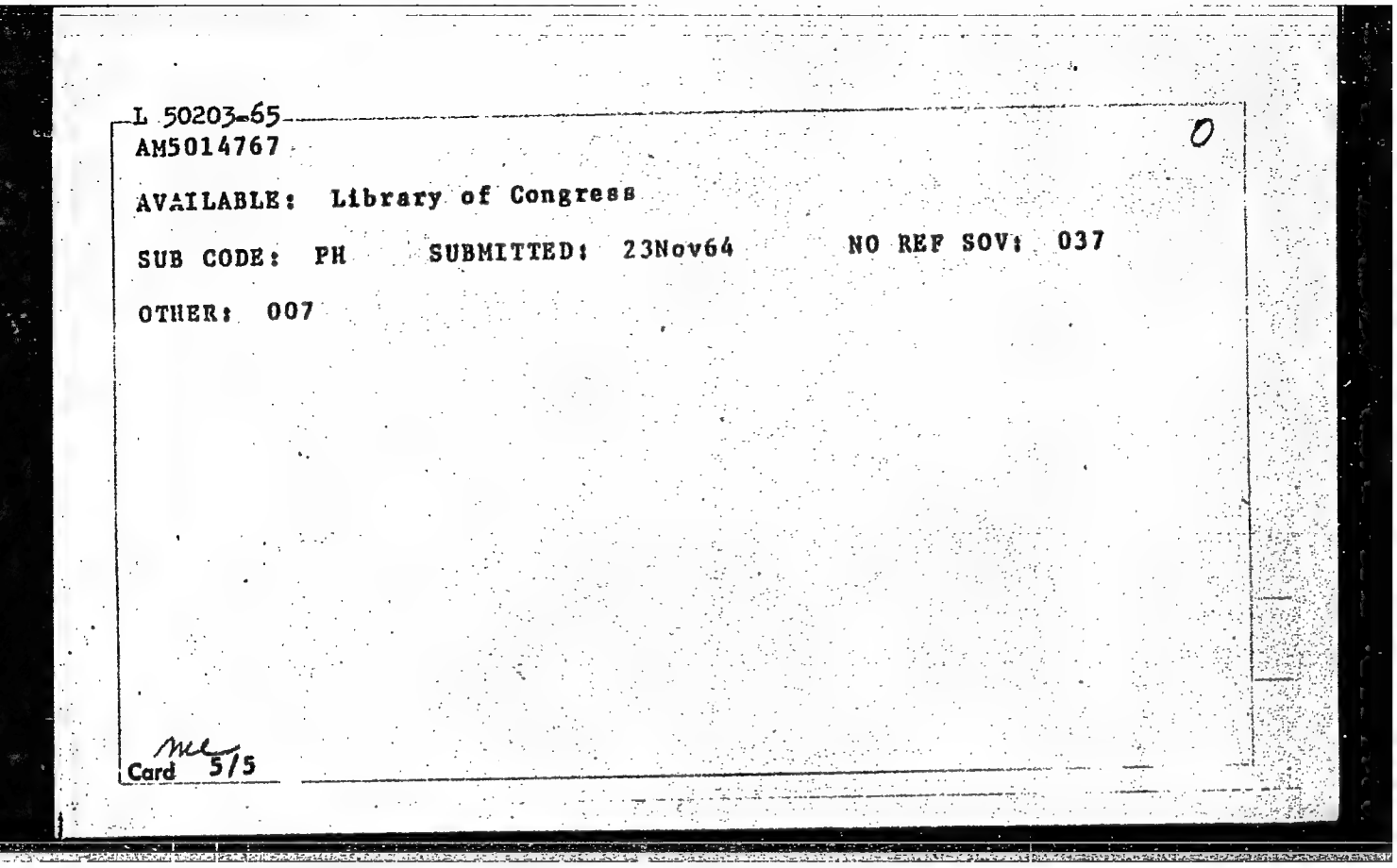

L 50203-65
AM5014767

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AVAILABLE: Library of Congress

SUB CODE: PH SUBMITTED: 23Nov64 NO REF SOV: 037

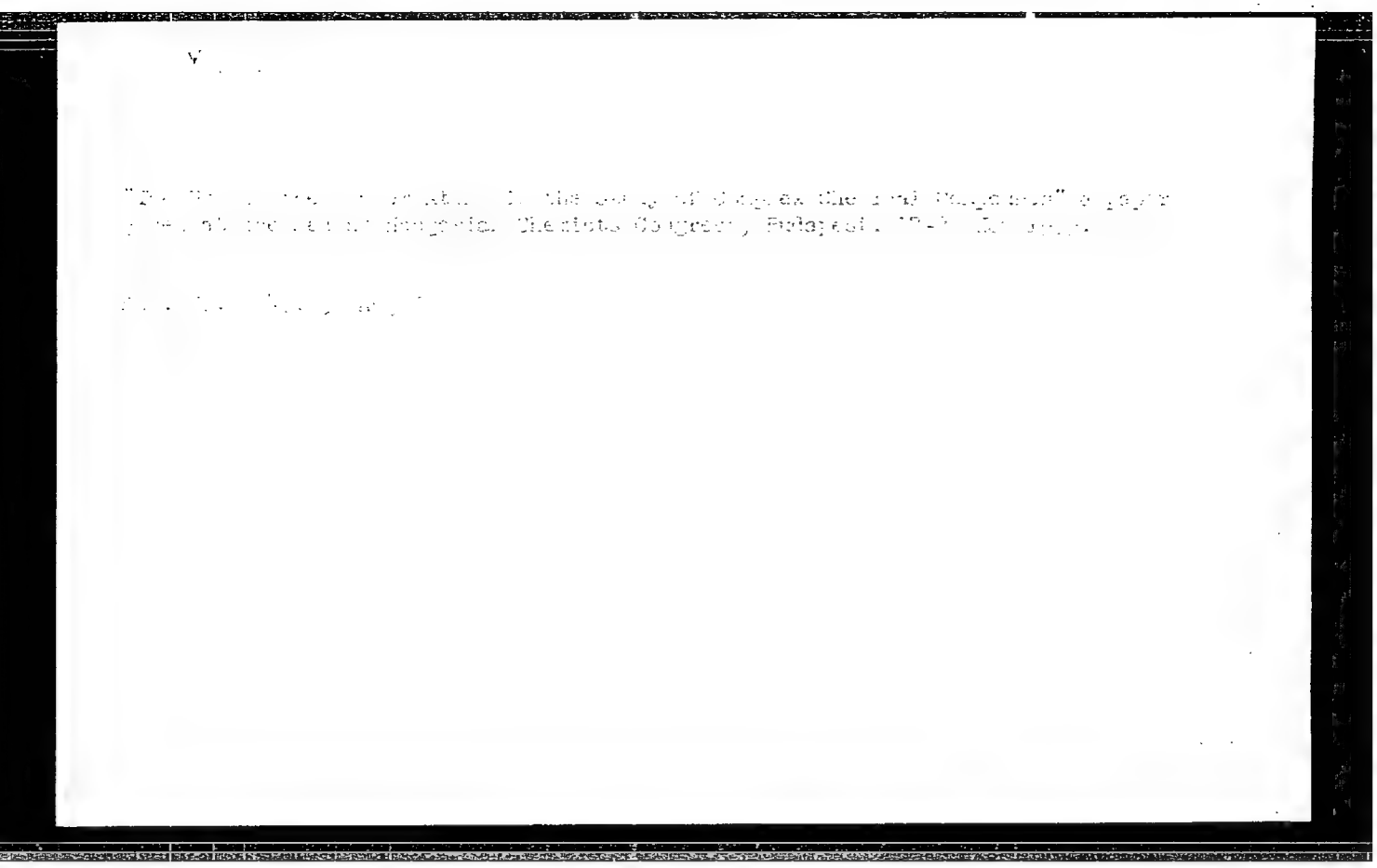
OTHER: 007

Card 5/5

SPITSYN, Yu.G., kand. tekhn. nauk

Practice of using the seismoacoustic method to study the stress state of a coal massif. Sbor. DonUGI no.29:53-61 '63. (MIRA 16:10)

(Seismometry) (Rock pressure)
(Coal mines and mining)



SPITSYN, Yu. G.

Spitsyn, Yu. G. - "The Range of Application of the Column System in Working Inclined Black-Coal Seams in the Donets Basin." Min Higher Education USSR. Moscow Mining Inst imeni I. V. Stalin. Chair of the Working of Stratum Deposits. Moscow, 1956 (Dissertation for the Degree of Candidate in Technical Sciences).

So: Knizhnaya Letopis', No. 10, 1956, pp 116-127

SPITSYN, Yu.G., kand.tekhn.nauk; SHCHORS, M.D., inzh.

Using the resonance method to determine the eleasticity modulus and Poisson's ratio of rocks. Sbor.DonUGI no.26:131-134 '62. (MIRA 16:6)

(Rocks--Elastic properties)

SPITSYN, Yu.G., kand.tekhn.nauk; NOVIKOV, A.I., inzh.; VOLKOV, N.S., inzh.; REZNIK, Yu.R., inzh.

Speed of the propagation of ultrasonic vibrations in rocks under monaxial compression. Sbor.DonUGI no.26:96-106 '62. (MIRA 16:6)

(Ultrasonic waves—Speed) (Rocks—Testing)

[illegible]-YAKOVLEV, K. I.

The Problem of the Role of the Leading Eye in Aiming.

VOYENNO-MEDITSINSKIY ZHURNAL (MILITARY MEDICAL JOURNAL), No 12, 1954. p.71

SPITSYN-YAKUBOVSKY K.G.

EXCERPTA MEDICA Sec. 12 Vol.11/11 Ophthalmology Nov57.

1859. SPITSYN-YAKUBOVSKY K. *Lesion of the retina in physical exertion (Russian text) VESTN.OFTAL. 1957, 1 (36-37)

A case is reported of a male, aged 22, who noticed loss of vision of the lower half of the eye after lifting a heavy load. There was decreased sensitivity of the skin in the area of the first and second branches of the trigeminus. The upper temporal quadrant of the retina was opaque, of a milky-grey colour; the lower border was just above the macula and the disc. The vision was reduced to 0.1. There was loss of visual field of the lower half of the eye. After bed-rest for 24 days with intravenous glucose injections, the vision was restored to normal and the lesion in the retina was barely noticeable, with a relative scotoma in the lower field. A month later the patient was re-admitted to the hospital and although there were no visible changes in the retina there was complete loss of visual field in the lower half of the eye, i.e. loss of function of the retina. Sitchevska - New York, N.Y.

SPITSYN-YAKUBOVSKIY, K.G.

SPITSYN-YAKUBOVSKIY, K.G., kapitan meditsinskoy sluzhby

Lance with mounted light for removing foreign bodies form the cornea. Oft.zhur. 12 no.2:122 '57. (MIRA 10:11)
(EYE, INSTRUMENTS AND APPARATUS FOR)

SPITSYN-YAKUBOVSKIY, K.G.

Retinal dimness in a case of physical overstrain. Vest. oft. 70 no.1:36-37 Ja-F '57 (MLRA 10:5)

(FATIGUE
with retinal dimness) (Rus)
(RETINA, dis.
dimness, in fatigue) (Rus)

SPITSYN-YAKUBOVSKIY, K.G., kapitan meditsinskoy sluzhby

Nasal surgery in epiphora. Voen.med.zhur. no.3:85-86 '59.
(MIRA 12:6)

(LACRIMAL ORGANS--DISEASES)

SPITSYN-YAKUBOVSKIY, K.G.

Rare case of twin vascular infundibula on the papilla of the optic nerve. Vest.oft. 72 no.4:45-46 Jl-Ag '59. (MIRA 13:4)
(FUNDUS OCULI abnorm.)

KOROTKOV, Aleksandr Filippovich; SPITSYNA, A., red.; SHLYK, M., tekhn. red.

[The pulse of our city] Pul's zhizni nashego goroda. Moskva, Mosk. rabochii, 1963. 109 p. (MIRA 16:5)

1. Nachal'nik Moskovskogo gorodskogo statisticheskogo upravleniya (for Korotkov).
(Moscow--Economic conditions)

VOLKOV, Georgiy Petrovich; GUROV, Sergey Zotikovich; SPITSYNA,A., red.

[First plastics plant] Pervyi plastmassovyi. Moskva, Mosk. rabochii, 1964. 106 p. (MIRA 17:12)

[illegible] V, Akademiya Arkhitektury SSSR, otv. red.

[Moscow as a center of science] Moskva -- tsentr nauki. Moskva, Mosk. rabochii, 1964. 154 p. (MIRA 17:12)

SPITSYNA, D. N. Cand Tech Sci -- "Dynamics of the metal structures of bridges of port and stripper cranes." Mos, 1960 (Min of Higher and Secondary Specialized Education RSFSR. Mos Order of Lenin and Order of Labor Red Banner Higher Tech School im N. E. Bauman). (KL, 1-61, 197)

PHASE I BOOK EXPLOITATION SOV/3674

Spitsyna, Irina Fedorovna

Ul'trazvukovyye tolshchinomery i tekhnika izmereniya tolshchin s ikh pomoshch'yu (Ultrasonic Thickness-Gages and Their Use) Leningrad, 1958. 27 p. (Series: Informatsionno-tekhnicheskiy listok, No. 76-77, Elektricheskiye metody obrabotki metallov) 6,200 copies printed.

Sponsoring Agencies: Leningrad. Dom nauchno-tekhnicheskoy propagandy, Obshchestvo po rasprostraneniyu politicheskikh i nauchnykh znaniy RSFSR.

Ed.: Sh.D. Achkinadze; Tech. Ed.: D.P. Freger.

PURPOSE: The booklet is intended for engineers and workers engaged in construction work, machine manufacturing and metalworking.

COVERAGE: The booklet deals with the ultrasonic method of measuring thickness. According to the author, this method has the following

Card 1/3

[redacted], [redacted]

Dissertation: "[redacted] System in Telphers." Moscow Order of the Labor Red Banner Higher Technical School imeni N. E. Bauman, 14 Apr 47.

SO: Vechernyaya Moskva, Apr, 1947 (Project #17836)

SPITSYNA, I.O., kandidat tekhnicheskikh nauk.

Eliminate the lag in designing and producing electric compound pulleys. Mekh.trud.rab. 10 no.4:20-23 Ap '56. (MLRA 9:7)
(Pulleys)

SPITSYNA, I.O., kandidat tekhnicheskikh nauk; ZORINA, Z.M., inzhener; MANAKIN, N.V., redaktor; UVAROVA, A.F., tekhnicheskiy redaktor

[Method of computing the gearing of hoisting and conveying machinery] Metodika rascheta zubchatykh zatseplenii pod"emno-transportnykh mashin. Moskva, Gos.nauchno-tekhn.izd-vo mashino-stroit.lit-ry, 1957. 36 p. (MIRA 10:7)

1. Moscow. Vsesoyuznyy nauchno-issledovatel'skiy institut pod"yemno-transportnogo mashinostroyeniya
(Gearing) (Hoisting machinery) (Conveying machinery)

BARAT, Iosif Yefimovich, kandidat tekhnicheskikh nauk; BARSHEV, Vladimir Nikolayevich, inzhener; BOGUSLAVSKIY, Vladimir Konstantinovich, kandidat tekhnicheskikh nauk; D'YACHKOV, Vladimir Konstantinovich, kandidat tekhnicheskikh nauk; KORNEYEV, Grigoriy Kuz'mich, kandidat tekhnicheskikh nauk; KUZNETSOV, Leonid Vasil'yevich, inzhener; MEKLER, Abram Grigor'yevich, kandidat tekhnicheskikh nauk; NIKOLAYEVSKIY, Georgiy Matveyevich, kandidat tekhnicheskikh nauk; NIKONOV, German Pavlovich, inzhener; OLEKHNOVICH, Angelina Iosifovna, inzhener; SEGAL', Il'ya Samoylovich, kandidat tekhnicheskikh nauk; SPITSINA, Irina Gainovna, kandidat tekhnicheskikh nauk; GORA, V.Ye., inzhener, retsenzent; SPIVAKOVSKIY, A.O., professor, redaktor; BURMISTROV, P.I., kandidat tekhnicheskikh nauk, redaktor; MARTENS, S.L., inzhener, redaktor; MATVEYEVA, Ye.N., tekhnicheskiy redaktor; TIKHANOV, A.Ya., tekhnicheskiy redaktor

[Present-day hoisting and conveying technology in foreign countries; a survey of the literature] Sovremennaia pod"emno-transportnaia tekhnika za rubezhom; obzor literatury. Pod red. A.O.Spivakovskogo i dr. Moskva, Gos. nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1957. 306 p. (MLRA 10:6)

1. Chlen-korrespondent Akademii nauk SSSR (for Spivakovskii)
(Hoisting machinery)

SPUTSYNA, I.O

NIKOLAYEVSKIY, G.M., kandidat tekhnicheskikh nauk; ALEKSANDROV, M.P., kandidat tekhnicheskikh nauk; AKSENOV, I.P., kandidat tekhnicheskikh nauk; MEKLER, A.G., kandidat tekhnicheskikh nauk; SPUTSYNA, I.O., kandidat tekhnicheskikh nauk; ZORINA, Z.M., inzhener; VOROBKOV, G.N., inzhener; IVASHKOV, I.I., kandidat tekhnicheskikh nauk; POLKOVNIKOV, V.S., kandidat tekhnicheskikh nauk; MODEL', B.I., tekhnicheskiy redaktor

[Calculations for crane mechanisms and parts for hoisting and conveying machines] Raschety kranovykh mekhanizmov i detalei pod"emno-transportnykh mashin. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1957. 435 p. (MIRA 10:8)

1. Moscow. Vsesoyuznyy nauchno-issledovatel'skiy institut pod"yemno-transportnogo mashinostroyeniya
(Cranes, derricks, etc.)

SPITSYNA, I.O.

SPITSYNA, I.O., kand.tekhn.nauk

Broaden the nomenclature of electric pulleys. Mekh.trud.rab.11 no.9:10-13 S '57. (MIRA 10:11)

(Pulleys)

NIKOLAYEVSKIY, G.M., kand.tekhn.nauk; SNESAREV, G.A., kand.tekhn.nauk; BALASHOV, V.P., kand.tekhn.nauk; AKSENOV, I.P., kand.tekhn.nauk; MEKLER, A.G., kand.tekhn.nauk; SPITSYNA, I.O., kand.tekhn.nauk; ZORIN, Z.M., inzh.; VOROBKOV, G.N., inzh.; IVASHKOV, I.I., kand. tekhn.nauk; OSIPOVA, L.A., red.izd-va; MODEL', B.I., tekhn.red.

[Design of crane mechanisms and parts of hoisting and conveying machinery] Raschety kranovykh mekhanizmov i detalei pod"emno-transportnykh mashin. Izd.2., perer. i dop. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1959. 493 p.
(MIRA 13:11)

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(Cranes, derricks, etc.) (Hoisting machinery)
(Conveying machinery)

KONOVALOV, L.V., inzh.; SPITSYNA, I.O., kand.tekhn.nauk; FREYDBERG, S.I., inzh.

Life of crane parts. Sbor. VNIIPTMASH no.25:3-16 '59 (MIRA 13:11)

(Cranes, derricks, etc.)

BARAT, I.Ye.; D'YACHKOV, V.K.; MEKLER, A.G.; NIKOLAYEVSKIY, G.M.; OLEYNIK, A.M.; SEGAL', I.S.; SPITSINA, I.O.; PLAVINSKIY, V.I., red.; CHANGLI, I.I., red.; OSIPOVA, L.A., red. izd-va; TIKHANOV, A.Ya., tekhn. red.

[Present state of the hoisting and conveying machinery industry] Sovremennoe sostoianie pod"emno-transportnogo mashinostroeniia. By Kollektiv sovetskikh, chekhoslovatskikh i nemetskikh avtorov. Moskva, Mashgiz; Prague, SNTL; Berlin, VT, 1961. 420 p. (MIRA 14:11)
(Hoisting machinery) (Conveying machinery)

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C111/C444

AUTHOR: Spitsyna, L. A.

TITLE: Singular sets of ∞^1 couples of corresponding points of a plane collineation and its application to the solution of problems

PERIODICAL: Referativnyy zhurnal, Matematika, no. 1, 1962, 59, abstract 1A351. (Uch. zap. Arzamassk. gos. ped. in-t, 1960, 4, 49 -55)

TEXT: The plane collineation Γ be determined by three double points and a couple of corresponding points. The following sets are investigated:

1.) The set $\sum_a$ of all ∞^1 couples of corresponding points X, X'; Y, Y'; Z, Z';..., lying on all possible straight lines x, y, z,... of the plane sheaf with the centre at the point A;

2.) The set $\sum_k^2$ - of all ∞^1 couples of corresponding points X, X'; Y, Y'; Z, Z';..., lying on all possible tangents of a conic section k(on every straight line, not being double in Γ, there exists a

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Singular sets of ∞^1 couples...

unique couple of non-corresponding points). E. g. one proves that the corresponding points of the couples of $\sum_a$ lie on conic sections ρ^2 and $\bar{\rho}^2$ which correspond to each other in Γ; the corresponding points of $\sum_k^2$ lie on curves ρ^4 and $\bar{\rho}^4$ of fourth order, corresponding to each other, with three common double points. This last statement gives the possibility of a new construction of a curve of fourth order, according to three double and five single points; the construction is of linear character; further on the second statement allows an improvement of the theorem of M. Milinowski on the fact that the straight lines which connect the corresponding points of two collinear curves C^n and C_1^n of n-th order, enclose a certain curve k of 2n-th class and n(n+1)-th order, where the curve k is touching C^n as well as C_1^n in 2n(n-1) points. The second statement which does not always hold is improved. Further on a new synthetic proof is given of the theorem that all tangents of a spatial curve ρ^3 of third order form a surface of fourth order.

Card 2/2 [Abstracter's note: Complete translation.]

TYAZHEL'NIKOV, Anatoliy Dmitriyevich, nauchn. sotr.; SHITSYNA, L.M., red.

[Advice to Siberian orchardist] Sovety sibirskim sadovodam. Tomsk, Izd-vo Tomskogo univ. 1963. 108 p. (MIRA 17:8)

1. Sibirskiy botanicheskiy sad pri Tomskom gosudarstvennom universitete (for Tyazhel'nikov).

ZALUKAYEV, L.P.; SPITSYNA, L.Ya.

Bimolecular alkylidenearylamines. Part 7: Structure of "Eibner bases." Zhur.ob.khim. 31 no.9:3067-3069 S '61. (MIRA 14:9)

1. Voronezhskiy gosudarstvennyy universitet i Voronezhskiy sel'skokhozyaystvennyy institut.
(Quinoline)

ZALUKAYEV, L.P.; SPITSYNA, L.Ya.

Bimolecular alkylidene aryl amines. Part 9: Special structure of 2-methyl-4-anilino-1,2,3,4-tetrahydroquinolines. Zhur. ob. khim. 34 no.10:3392-3395 O '64. (MIRA 17:11)

1. Voronezhskiy gosudarstvennyy universitet i Voronezhskiy sel'skokhozyaystvennyy institut.

3(8) PHASE I BOOK EXPLOITATION SOV/2270

Glavnaya geofizicheskaya observatoriya

Voprosy sinopticheskoy klimatologii (Problems in Synoptic Climatology) Leningrad, Gidrometeoizdat, 1959. 105 p. (Series: Its: Trudy, vyp. 87) 1,100 copies printed.

Sponsoring Agency: Glavnoye upravleniye gidrometeorologicheskoy sluzhby pri Sovete Ministrov SSSR.

Ed. (Title page): T.V. Pokrovskaya, Candidate of Geographical Sciences; Ed. (Inside book): T.V. Ushakova; Tech. Ed.: A. N. Sergeyev.

PURPOSE: This issue of the Observatory's Transactions is intended for meteorologists and climatologists.

COVERAGE: The authors are primarily concerned with the possibility of using various monthly characteristics of atmospheric circulation in forecasting monthly air temperature anomalies. One of the articles discusses the inertia of the temperature and its utilization in forecasting. Other articles are concerned with the effects of solar activity on atmospheric circulation. The last article is devoted to the probability of cyclical regional distribution of mean negative diurnal temperatures, offering also a synoptic and climatological analysis of the results obtained. References accompany each article.

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SPITSYNA, N L.

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Leningrad. Glavnaya geofizicheskaya observatoriya

Voprosy sinopticheskoy klimatologii (Problems in Synoptic Climatology) Leningrad, Gidrometeoizdat, 1960. 154 p. (Series: Its: Trudy, vyp. 90) Errata slip inserted. 1,100 copies printed.

Additional Sponsoring Agency: USSR. Glavnoye upravleniye gidrometeorologicheskoy sluzhby.

Ed. (Title page): O. A. Drozdov, Doctor of Geography; Ed. (Inside book): V. S. Protopopov; Tech. Ed.: M. I. Braynina.

PURPOSE: The publication is intended for meteorologists and climatologists.

COVERAGE: This is a collection of 11 articles published as No. 90 of the Transactions of the Main Geophysical Observatory imeni A. I. Voyeykov

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and dealing with problems of synoptic climatology. Individual articles are concerned with the succession of synoptic processes as the basic for forecasting, atmospheric circulation over China, frequency of typhoons over China, and various processes of the eastern and western forms of atmospheric circulation. References accompany each article.

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AUTHORS: Pokrovskaya, T.V.; Spitsyna, N.L.

TITLE: Heliogeophysical relationships in the presence of different forms of atmospheric circulation

SOURCE: Leningrad. Glavnaya geofizicheskaya observatoriya. Trudy, no. 111, 1961. Voprosy obshchey i sinopticheskoy klimatologii, pp 118 - 125

TEXT: Data were obtained on changes in heliogeophysical relationships depending on the initial state of atmospheric circulation at the moment of increased solar activity. The study was limited to the effects of corpuscular invasions of the ionosphere, which can be evaluated by the degree of geomagnetic turbulence. Summarizing the results of research by B. and G. Duell and R.A. Craig who investigated how geomagnetic turbulence and quietness are associated with atmospheric pressure, the authors considered that variations in this relationship may be caused by different atmospheric states on the day of increased solar activity. In order to verify this assumption, N.L. Spitsyna compiled a catalogue of daily atmospheric pressure data for the

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